

\$1.00

# OWNER'S GUIDE

ASSEMBLY • OPERATION • MAINTENANCE • PARTS



**19"  
ELECTRIC  
ROTARY  
MOWER**

**Model Number  
181-414D002  
(4019)**

*GB86 190-127-002*



**IMPORTANT:  
Read Safety Rules and Instructions Carefully**

# IMPORTANT

## RULES FOR SAFE OPERATION



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR LAWN MOWER.



### CAUTION

THE MOTOR CONTROL ON THIS MOWER IS INSTALLED TO MINIMIZE THE RISK OF BLADE CONTACT INJURY AND IS REQUIRED BY FEDERAL REGULATIONS. DO NOT UNDER ANY CIRCUMSTANCES ATTEMPT TO DEFEAT THE FUNCTION OF THE MOTOR CONTROL

### TRAINING:

- Read the Operation and Service Instruction Manual carefully. Be thoroughly familiar with the controls and proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Never allow children to operate equipment. Never allow adults to operate equipment without proper instruction.
- Keep the area of operation clear of all persons, especially small children and pets.
- Use the mower only as the Manufacturer intended and as described in the Operator's Manual.
- Store idle mower indoors - When not in use, mower should be stored indoors in dry, high or locked-up place - Out of reach of children.
- Do not operate mower after it has been dropped or damaged in any manner. Return product to nearest Authorized Service Center for examination and repair.
- The use of accessory attachments not recommended by the mower manufacturer may cause hazards.

### PREPARATION:

- Objects struck by the lawn mower blade can cause severe injuries to persons. The lawn should always be carefully examined and cleared of all stones, sticks, wires, bones and other foreign objects.
- Dress properly - Wear only solid shoes when mowing. Do not operate mower when barefoot, or wearing open sandals. Do not wear loose clothing or jewelry. They can be caught in moving parts. Use of rubber gloves and substantial footwear is recommended when working outdoors.
- Never attempt to make a wheel height adjustment while the motor is running.
- Mow only in daylight or in good artificial light.
- Do not operate mower in damp or wet locations. Always be sure of your footing; keep a firm hold on the handle and walk; never run.
- Do not use in rain.
- Don't force product - it will do the job better and safer at the rate for which it was designed.
- Don't abuse cord - never pull product by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
- Warning - to prevent shock hazard use only with an extension cord suitable for outdoor use.

- Avoid accidental starting - don't pull plugged-in product with finger on switch. Be sure switch is off when plugging in.

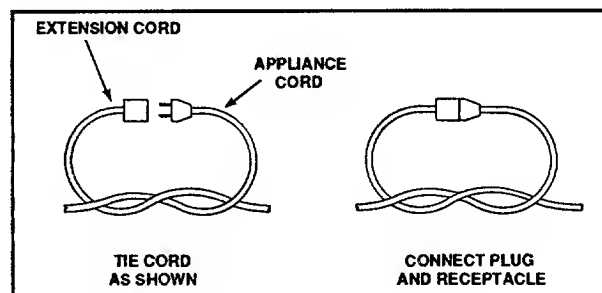


### EXTENSION CORDS:

- Use only UL approved outdoor extension cords of adequate gauge (min. 16 gauge recommended) which accept the appliance's plug. Replace or repair damaged cords. Extension cords are available at your dealer.
- To prevent disconnection of Lawn Mower from the extension cord during operation, use the strain relief connector described in this manual.
- Cord sets - Make sure your cord set is in good condition. When using a cord set, be sure to use one heavy enough to carry the current your lawn mower will draw. For lengths less than 50 feet, No. 16 AWG cord set should be used. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. (NOTE: Table below shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number the heavier the cord.)

Required Cord Gauge				
Motor Amp Rating	Cord Length in Feet			
	25	50	100	150
	Wire Gauge			
10-12	16	16	14	12

- If extension cord is damaged in any manner while plugged in, pull extension cord from wall receptacle.
- To prevent disconnection of unit from extension cord during operation, make knot as shown in illustration, or use one of the plug receptacle retaining straps or connectors available at most hardware stores.



### POWER SUPPLY:

- Fuses - The motor should be operated on a 15 AMP circuit. If difficulty in starting is experienced with a standard 15 AMP fuse or circuit breaker, contact your nearest Authorized Service Center.
- Frequent blowing of fuses - do not use a higher rated fuse without consulting your power company.

## DOUBLE INSULATED LAWN MOWER

DOUBLE INSULATION IS A CONCEPT IN SAFETY, IN ELECTRIC LAWN MOWERS, WHICH ELIMINATES THE NEED FOR THE USUAL THREE WIRE GROUNDED POWER CORD AND GROUNDED SUPPLY SYSTEM. WHEREVER THERE IS ELECTRIC CURRENT IN THE MOWER THERE ARE TWO COMPLETE SETS OF INSULATION TO PROTECT THE USER. ALL EXPOSED METAL PARTS ARE ISOLATED FROM THE INTERNAL METAL MOTOR COMPONENTS WITH PROTECTING INSULATION.

IMPORTANT SERVICING OF A LAWN MOWER WITH DOUBLE INSULATION REQUIRES EXTREME CARE AND KNOWLEDGE OF THE SYSTEM AND SHOULD BE PERFORMED ONLY BY A QUALIFIED SERVICE TECHNICIAN. FOR SERVICE WE SUGGEST YOU RETURN THE LAWN MOWER TO YOUR NEAREST AUTHORIZED SERVICE CENTER FOR REPAIR. ALWAYS USE ORIGINAL FACTORY REPLACEMENT PARTS WHEN SERVICING.

### OPERATION:

- Do not put hands or feet near or under rotating parts.
- Keep clear of the discharge opening at all times.
- Stop the motor whenever you leave the mower, before crossing drives, walks or roads.
- After striking a foreign object, shut off the motor, make absolutely sure the blade and all moving parts have completely stopped, disconnect the power cord to prevent accidental starting, then thoroughly inspect the mower for any damage. Such damage must be repaired before restarting and operating the mower. Remember, heavy vibration is generally a sign of trouble.
- If mower should start to vibrate abnormally, stop the motor and check immediately for the cause.
- Stop the motor, wait for blade and all moving parts to stop, before cleaning, unclogging chute, removing grass catcher, repairing or inspecting the mower. Always disconnect power cord to prevent accidental starting.
- Never operate the mower without proper guards, plates, or other safety protective devices in place.

- Never cut grass by pulling the mower towards you. Mow grass across the face of slopes, never up and down. Do not mow excessively steep slopes. Use caution when operating the mower on uneven terrain or changing direction; maintain good footing.

### MAINTENANCE AND STORAGE:

- Maintain Lawn Mower With Care - Keep cutting edges sharp and clean for best and safest performance.
- Check the blade and the motor mounting bolts at frequent intervals for proper tightness.
- Check all bolts, nuts and screws, etc. at frequent intervals for proper tightness to be sure equipment is in safe working condition.
- To reduce fire hazard, keep the motor free of grass, leaves, or excessive grease.
- Check grass catcher bags frequently for deterioration and wear and replace worn bags. Check that replacement bags comply with original manufacturer's recommendations or specifications.
- Allow motor to cool before storing in any enclosure.
- Use identical replacement blades only.

This Lawn Mower conforms to the safety standards of the American National Standards Institute, Underwriter's Laboratories & Outdoor Power Equipment Institute. Meets Consumer Products Safety Commission Blade safety requirements for walk behind rotary power lawn mowers.



## ALWAYS WEAR EYE PROTECTION

The operation of any lawnmower can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields before starting power tool operation or while performing any adjustments or repairs. We recommend a wide vision safety mask for over spectacles or standard safety glasses, available at your nearest distributor.

This symbol on the products name plate  
means it is listed by  
UNDERWRITERS LABORATORIES, INC





**WARNING:** Do not operate this mower without the safety chute guard or an entire approved grass catcher in place. These guards are for your protection and are required by the American National Standards Institute.

## SET-UP INSTRUCTIONS

Read this Manual in its entirety before attempting to assemble or operate the Lawn Mower. The Lawn Mower has been assembled at the factory with the exception of those parts left unassembled for shipping purposes. All parts such as Nuts, Washers, Bolts, Etc., necessary to complete the assembly, have been placed in the Parts Bag.

**NOTE:** Failure to follow all set-up and operating instructions will void the warranty on this product.

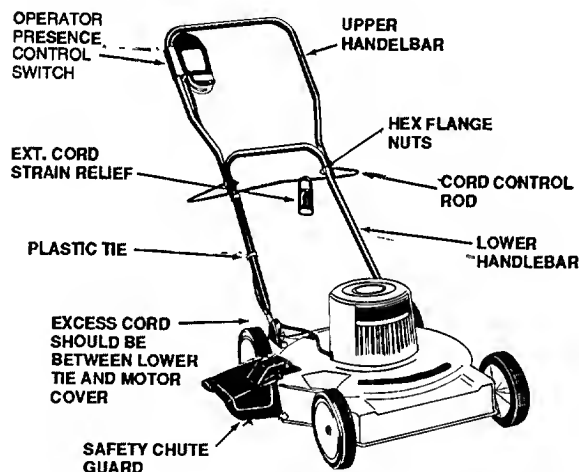
The following parts are included not assembled:

Upper & Lower Handle, Cord Control Rod, Hardware parts Bag.

**NOTE:** Before Assembling or Operating Unit, Check for Damage and/or Missing Parts.

Remove the mower from carton by gripping both ends of the mower housing and place on level ground for set-up. See Reference Illustration for assembly assistance. **WARNING:** Bottom edge of deck may have sharp edges. The blade is also very sharp. Always wear gloves or other protection when working under or lifting the mower.

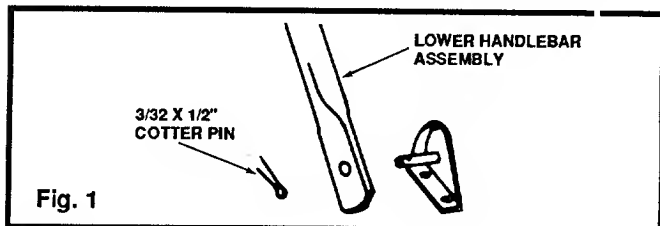
### REFERENCE ILLUSTRATION



MEETS CPSC BLADE SAFETY REQUIREMENTS

### STEP 1

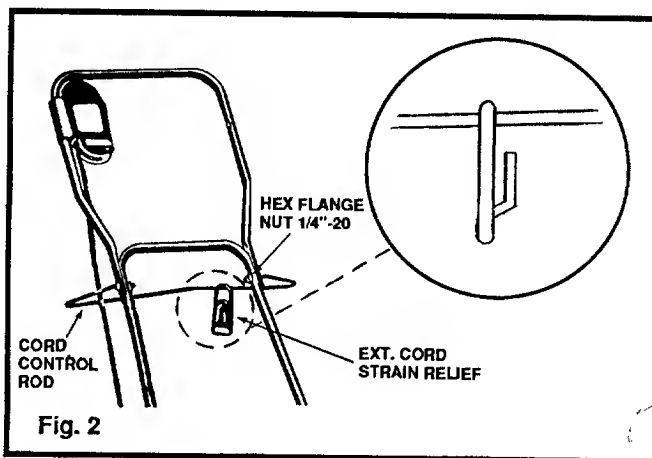
Attach Lower Handle to mower and secure with two (2) 1/2" long cotter pins (See Fig. 1).



### STEP 2

Remove Extension Cord Strain Relief and two (2) 1/4" - 20 Hex Flange Nuts from parts bag and the Cord Control Rod from carton. Position upper handle onto lower handle and align mounting holes. Slip one end of rod into handle holes on one side and secure with 1/4" - 20 hex flange nut. Slide Strain Relief onto loose end of Control Rod with tongue in direction shown

(See Fig. 2). Carefully pull loose end of rod and insert in holes on the other side of handles. Secure with remaining nut and tighten nuts securely.



### STEP 3

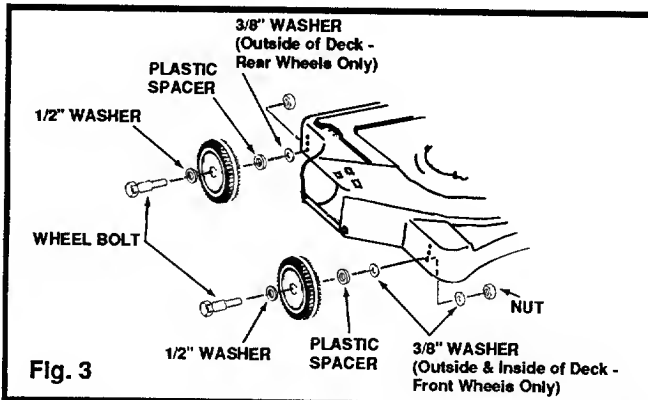
Route power cord to Upper and Lower Handles with plastic ties from parts bag as shown (See Reference Illustration).

### STEP 4 WHEEL ASSEMBLY

#### BOLT-ON WHEELS

See Adjusting Height of Cut in Operating Instructions.

Assemble wheels to mower with wheel bolts, washers and 3/8-16 Nuts from parts bag and tighten all nuts securely (See Fig. 3).



**NOTE:** Use 1/2" washers and plastic spacers only if necessary to remove side play.

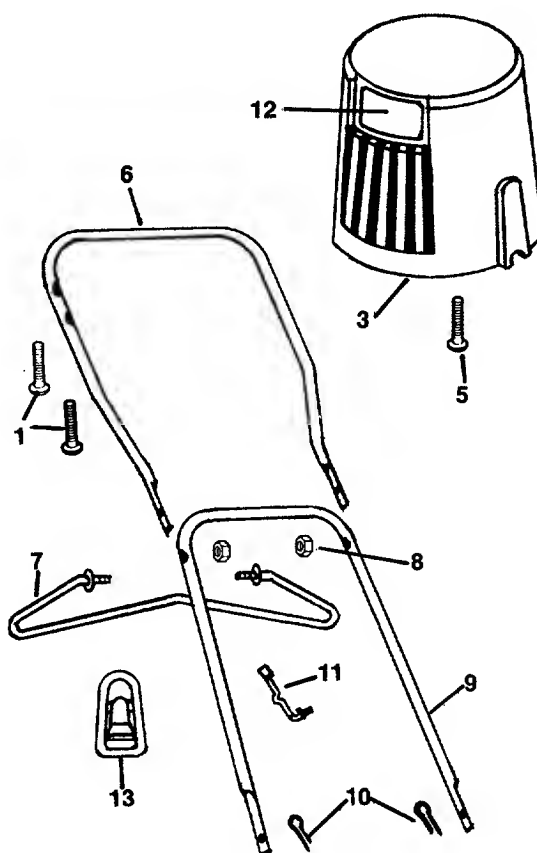
#### WHEELS W/ADJUSTERS (if equipped)

Assemble adjusters to deck before attaching wheels. Each adjuster must be positioned so as to point axle pin in proper direction. Axle pins must point forward at both front positions and point rearward for both rear positions (See Fig. 4).

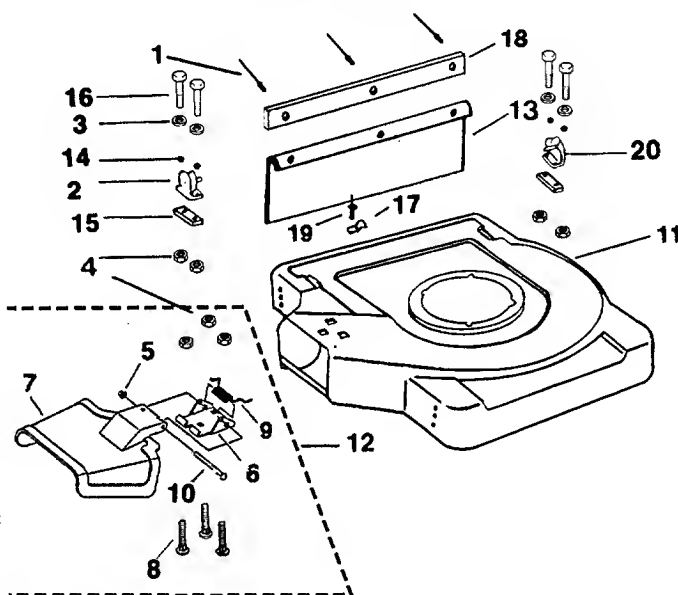
# MODEL 414D (4019)

## HANDLEBAR ASSEMBLY

Ref. No.	Part No.	Description
1	710-1150	Screw
3	731-1239	Plastic Shroud
5	710-1128	10-16 x 3/4" T25 Tapping
6	749-0838	Upper Handle
7	747-0789	Cord Control Rod
8	712-0441	1/4"-20 Locknut
9	749-0839	Lower Handle
10	714-0225	Cotter Pin 3/32" x 1/2"
11	726-0303	Cord Tie
12	777-9381	Warning Decal
13	725-1590	Strain Relief



## BASE ASSEMBLY

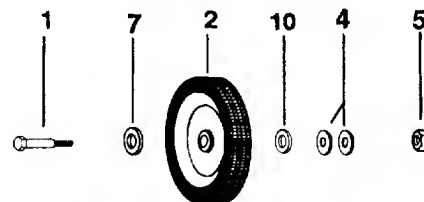


Ref. No.	Part No.	Description
1	728-0143	Blind Rivet
2	682-3010	Handlebar Bracket R.H.
3	736-3090	1/4" Flat Washer
4	712-0324	1/4" - 20 Locknut
5	726-0111	Button Retainer
6	782-7002	Hinge Bracket
7	731-1238	Guard - Chute (Plastic)
8	710-0167	1/4" - 20 x 1/2" Carriage Bolt
9	732-0662	Spring (For Plastic Chute)
10	711-0863	Hinge Pin
11	682-0100	19" Deck (3-Hole Chute)
12	631-0001	Chute Guard Ass'y. (Plastic)
13	720-0248	Trail Shield
14	731-1219	Insulator
15	721-0278	Insulator Strip
16	710-0206	1/4" - 20 x 7/8" HHCS
17	726-0308	Clamp
18	782-7513	Strap - Trail Shield
19	728-0123	Blind Rivet
-	770-7394F	Owner's Guide (Not Shown)
20	682-3009	Handlebar Bracket L.H.

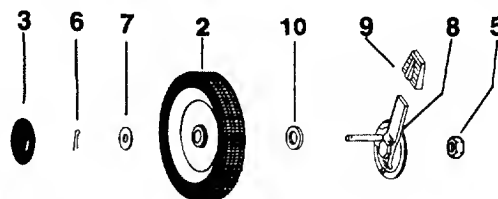
**WARNING:** Insulators are safety components. It is important that all parts be reassembled in positions shown.

## WHEEL ASSEMBLY

### Manual Height Adjustor



### Fingertip Height Adjustor (Optional)



Ref. No.	Part No.	Description
1	738-0856	Shoulder Bolt
2	734-1170	7" Plastic Wheel (Value Marlex)
-	734-1695	6" Plastic Wheel (Blow Mold Optional)
-	634-0004	7" Plastic Wheel (Std. Marlex Optional)
3	720-0251	Hub Cap (Opt.-Std. Marlex Wheel Only)
4	736-3050	Washer - 3/8"
5	712-0438	Locknut
6	714-0507	Cotter Pin
7	736-0192	Washer - 1/2"
8	682-0009	Height Adj. Asm. (RF/LR)
-	682-0010	Height Adj. Asm. (LF/RR)
9	720-0239	Knob
10	750-0796	Spacer (For Std. Marlex Only)

## BLADE CARE

All lawn mower blades must be balanced to run smoothly. Your blade has been checked at the factory. Resharpener is not recommended. Replace worn blade.

## REPLACING BLADE

### CAUTION

For proper operation, cutting edges of blade must be sharp. Always protect your hands by wearing heavy gloves and/or wrapping cutting edges with newspapers or other materials when performing any blade maintenance.

### WARNING

Disconnect power supply before replacing blade.

Turn Lawn Mower on its side. Remove Keps nuts; open blade insulator and remove cotter pin, blade nut, flat washer, bolt blade insulator and carriage bolts (See Fig. 12).

When remounting, blade parts MUST be assembled in the exact order as shown, (See Fig. 12) Tighten blade mounting nut securely (30-35 ft. pounds or torque). Re-insert cotter pin and bend ends to secure. (NOTE: If after tightening nut, the slot in nut is not aligned with hole in shaft, tighten nut only enough to allow cotter pin insertion).

### WARNING

It is important that all parts be reassembled in positions shown.

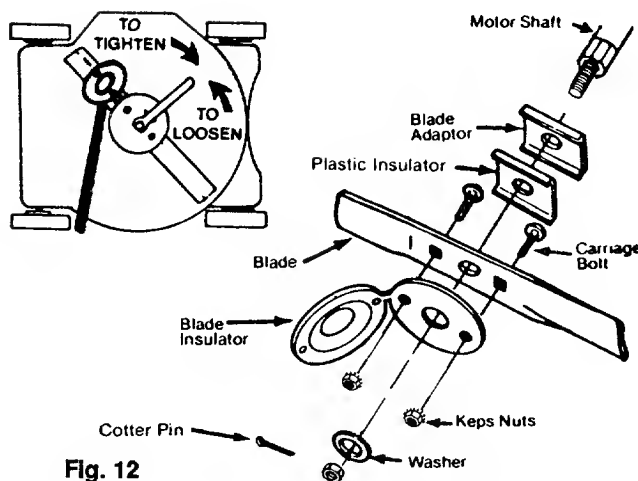


Fig. 12

## STORAGE

Store Lawn Mower in a cool, dry place when not in use. Do not cover Lawn Mower with solid plastic sheet. Trapping moisture around Lawn Mower will promote rust and corrosion.

### WARNING

Be sure power supply is disconnected.

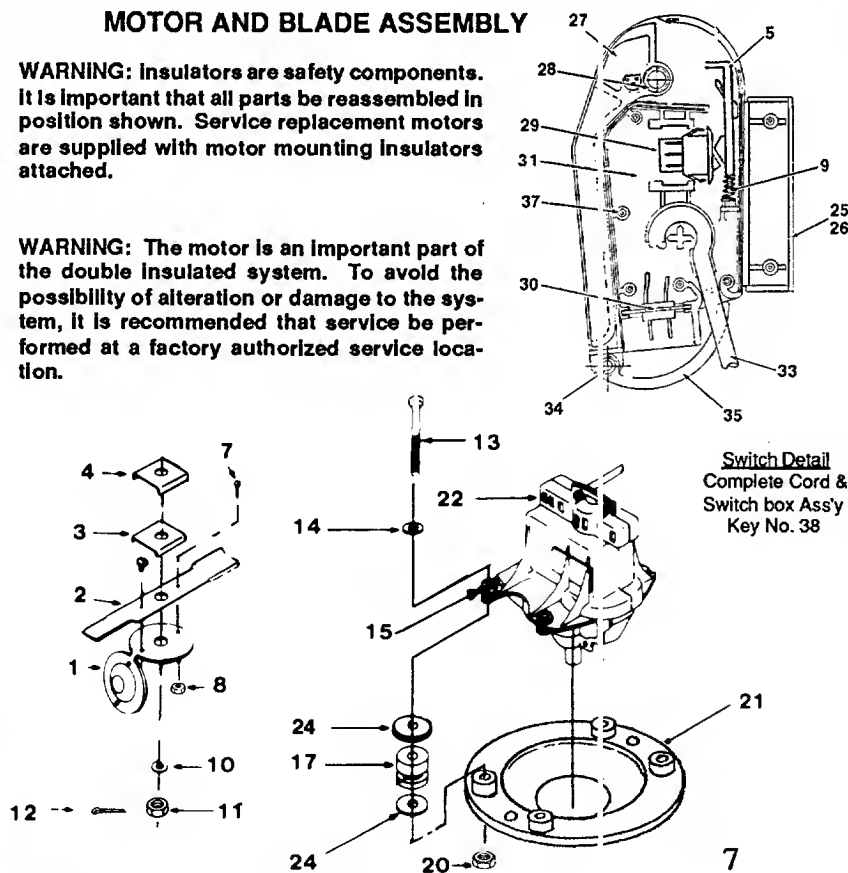
Turn mower over and remove grass cuttings with scraper from under deck. Wipe lawn mower clean with dry cloth occasionally.

1. Make sure switch is in off position for storage.
2. Replace extension cord if cut or abraded.
3. Extension cord should be wiped dry of any foreign substance such as oil or stains.
4. Wind cord and store in cool, dry place (See Fig 11).

## MOTOR AND BLADE ASSEMBLY

**WARNING:** Insulators are safety components. It is important that all parts be reassembled in position shown. Service replacement motors are supplied with motor mounting insulators attached.

**WARNING:** The motor is an important part of the double insulated system. To avoid the possibility of alteration or damage to the system, it is recommended that service be performed at a factory authorized service location.



### Ref.

No.	Part No.	Description
1	731-1217	Blade Insulator
2	742-0564	Blade 19"
3	731-1218	Adaptor Insulator
4	748-0343	Blade Adaptor
5	731-1198	Latch
7	710-0451	Bolt - Carriage 5/16-18 x 3/4"
8	712-0437	Locknut 5/16-18
9	732-0681	Latch Spring
10	736-0462	Washer
11	712-0401	Nut (Special)
12	714-0228	Cotter Pin (Stainless Steel)
13	710-1122	Screw (Special)
14	736-3090	Washer
15	731-1216	Insulator
17	721-0277	Grommet Assembly
20	712-0324	Locknut 1/4" - 20
21	724-0188	Motor Shield
22	718-60100	Motor & Switch Ass'y Complete
24	736-0483	Washer
25	731-1208	Housing - Upper Half
26	731-1209	Housing - Lower Half (Not Shown)
27	731-1210	Handle - Switch
28	732-0679	Spring
29	725-1565	Switch
30	729-0304	Plug Assembly
31	818-60002	Jumper Wire (Not Shown)
33	818-60001	Cord Assembly (Includes #30)
34	732-0580	Spring - Plug Retainer
35	731-1211	Plug Retainer
37	710-1147	Screw (Not Shown)
-	777-9380	Label Switch Box (Not Shown)
38	818-60000	Cord & Switch Box Ass'y Complete

## OPERATOR PRESENCE CONTROL SWITCH

Your Lawn Mower is equipped with a Operator Presence Control Switch which prevents unintentional starting of motor. **TO RUN**-Lift lever with left forefinger and pull lever up with right hand. **TO STOP**-Release lever and motor will automatically shut-off (See Fig. 9).

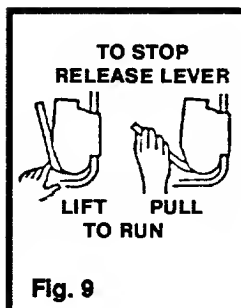


Fig. 9

### CAUTION

The motor control on this mower is installed to minimize the risk of blade contact injury and is required by federal regulations. Do not under any circumstances attempt to defeat the function of the motor control.

## BLADE BRAKING FEATURE

Your lawn mower has a braking feature. When the switch is turned off, the blade will stop in less than 3 seconds. **THE HIGH PITCH NOISE THAT YOU WILL HEAR IS THE DECELERATION OF THE ELECTRIC MOTOR. SPARKING AT TOP OF MOTOR IS ALSO NORMAL DURING DECELERATION.**



If motor does not come to immediate stop upon release of motor control lever, contact an Authorized Service Dealer.

## CORD CONNECTION



**WARNING:** Make sure switch lever is in "OFF" position.

Connect extension cord to strain relief. Allow enough excess cord to make switch box connection (approx. 32 inches) so cord will not separate from switch box when strain relief is in its furthest position from switch box (See Fig. 10A). Swing open spring loaded plug retainer and insert extension cord connector fully into switch box plug.

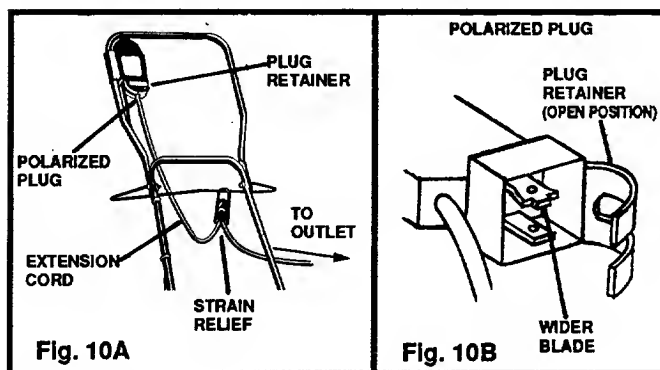


Fig. 10A

Fig. 10B

**NOTE:** Your mower is equipped with a polarized AC power plug (one blade of the plug is wider than the other), which will fit into the power extension cord connector only one way (See Fig. 10B). Should you be unable to insert the cord connector fully onto the switch box plug, try reversing the cord connector. Should the connector still fail to fit, contact your dealer for assistance. Do not defeat the safety purpose of the polarized plug.

Plug extension cord into outlet. See Page 2 for instructions on extension cords, power supply and grounding.

## CORD WINDING TIP

To prevent snarling as you pick cord up wind cord in a series of equal length loops on each side of your hand (See Fig. 11).

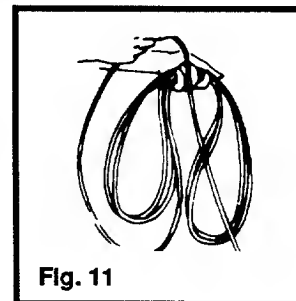


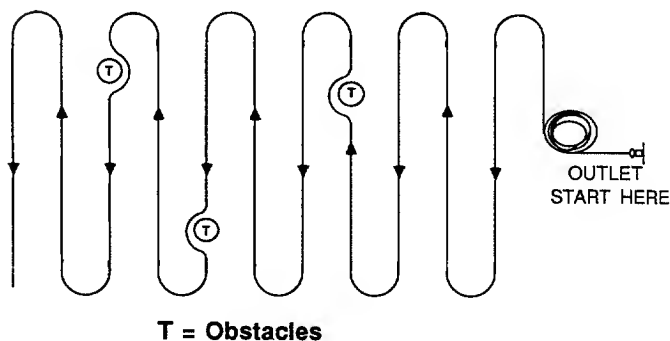
Fig. 11

## MOWING PROCEDURE

Never mow around the lawn in circles. Always travel back and forth across the lawn, beginning at the point nearest the electric outlet where you connect cord. Gradually move away from outlet as the lawn is mowed (This will keep the cord on the same side of the mower and out of the way).

Do not allow extension cord to become wrapped around trees, shrubs or other obstacles. Follow the technique illustrated.

The length of the extension cord you will need depends on the size of the area to be mowed. See extension cord information on page 2.

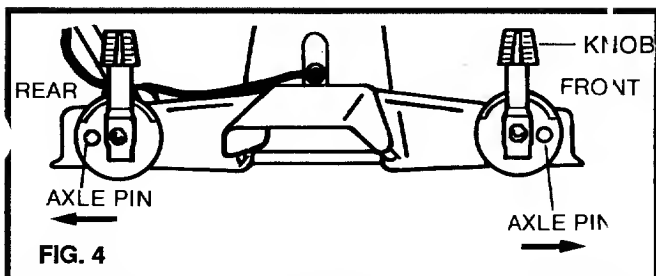


# MAINTENANCE AND STORAGE INSTRUCTIONS

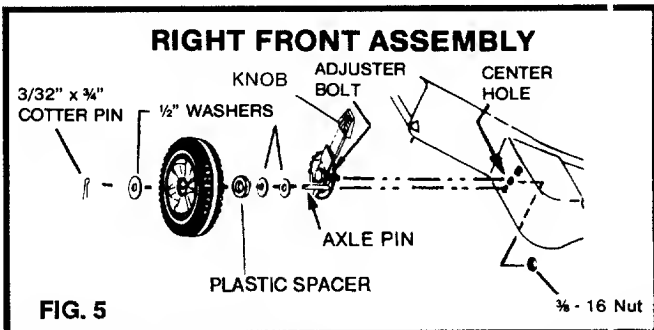


**WARNING.** Turn off motor and disconnect power supply before checking the lawn mower.

1. Check blade at frequent intervals for proper tightness.
2. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.
3. Remove any buildup of grass and leaves on or around motor cover (DO NOT USE WATER).
4. Turn lawnmower over and remove grass clippings with scrapper from underside of deck. Wipe lawnmower clean with a dry cloth occasionally.
5. After each use check blade for sharpness and replace if necessary.



Adjuster Bolt must be assembled into center hole in deck and the dimple below adjuster bolt must fit into bottom hole of deck (See Fig. 5). Secure each adjuster with 3/8 - 16 nut from parts bag and tighten securely.

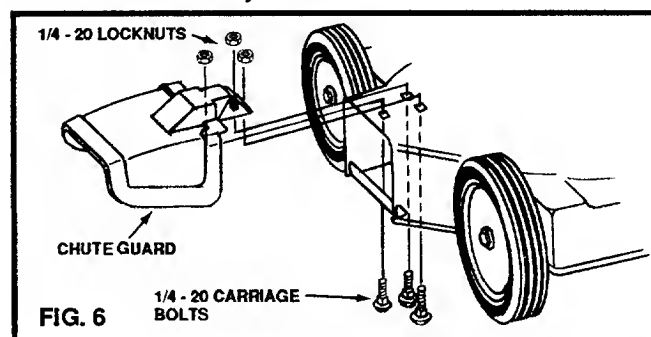


Assemble wheels to adjusters with 1/2" washers and 3/32"x3/4" Cotter Pins from parts bag (See Fig. 5). Bend ends of coppers to secure. Assemble plastic knobs to wheel height adjuster levers by pressing on or tapping lightly.

NOTE: Use 1/2" washers and plastic spacers only if necessary to remove side play.

## STEP 5

Attach the Safety Chute Guard to deck with (3) 1/4-20 x 1/2" carriage bolts and lock nuts as shown (See Fig. 6). For ease of assembly, first assemble the two rear bolts and nuts loosely. Raise Chute and assemble remaining bolt and nut. Tighten all bolts and nuts securely.



**WARNING:**  
Do not operate this mower without chute guard or an approved grass catcher in place.

The grass catcher accessory specifically designed for and suitable for use with your mower is Model No. 190-127 Grass Catcher. **Caution:** The use of other accessories not specifically designed or recommended for your mower may be hazardous.

# OPERATING INSTRUCTIONS

Before using your Lawn Mower, Again refer to the "Rules for Safe Operation" as shown on the inside of the front cover of this manual. Always be careful.

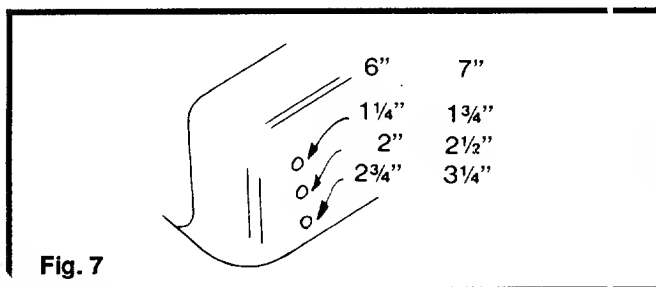
## ADJUSTING HEIGHT-OF-CUT

### WARNING

Disconnect power cord from unit before adjusting wheels.

### MANUAL HEIGHT ADJUSTMENT

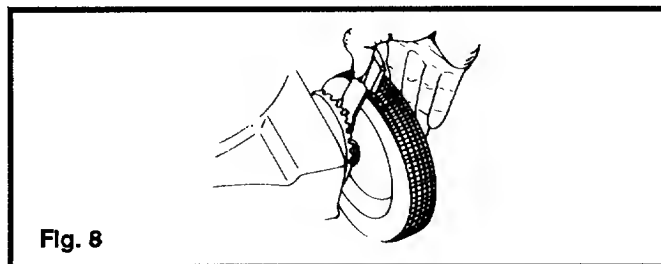
All wheels should be set to the same height. Holes are set for cutting height from 1-1/4" to 2-3/4" with 6" wheels, and 1-3/4" to 3-1/4" with 7" wheels, the higher the hole, the closer the cut. (See Fig. 7).



When changing cut heights ensure that components are reinstalled in the same order as they were before removal.

## FINGERTIP HEIGHT ADJUSTMENT (If equipped)

To change the cutting height, squeeze lever and wheel together, then rotate to desired position. (cutting height adjustment range is from 1-1/2" to 3-3/8"). Adjust all four wheels to same position. (See Fig. 8).



The average lawn should be cut approx. 1-1/2 to 2 inches during the cool season and over 2 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.

NOTE: The heights of cut are measured from the blade tip with the motor not running. These cutting heights are approximate and may vary depending upon soil conditions, height of grass and types of grass being mowed.